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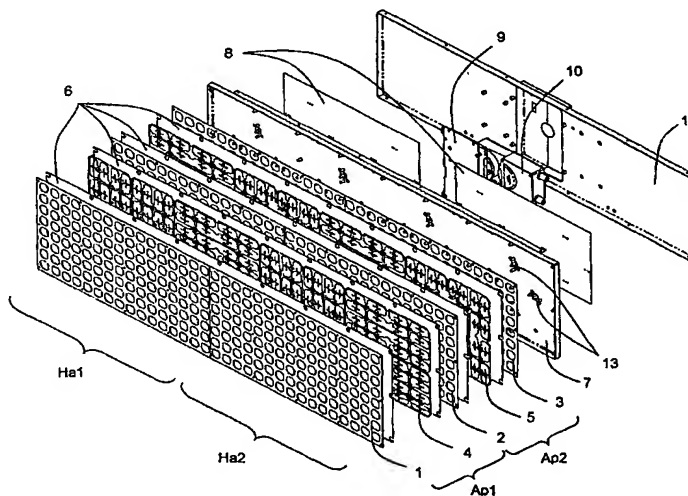
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(54) Title: **FLAT MICROWAVE ANTENNA**



(57) Abstract: The antenna, comprising stacked grounded metal plates with openings (1, 2, 3) and antenna layers (4, 5) with feed lines (4B, 5B), situated between grounded metal plates. The openings in the grounded metal plates are arranged as matrix of columns and rows. The ends of the feed lines (4D, 5D) are aligned with the plate's openings (1A) in order to form radiating elements. The plate (7) is placed below the bottom grounded plate (3). The three-plate stack is arranged as two antenna packages (Ap1 and Ap2). These packages include also a layer (8) comprising active devices for initial amplification of the received signal, which are connected to the groups of radiating elements (4D, 5D, 1A) through coaxial transitions (13). As well as a combiner block (9) is connected to the active layer (8). The antenna layers (4,5) are arranged in subarrays and the antenna output is connected by a transition (12) to a standard twin Low Noise Block.

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